	Application No.	Applicant(s)
Notice of Allowability	10/689,661	LIU, YU-JIH
	Examiner	Art Unit	
	Dai A. Phuong	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *05-05-2006*.

2. ☒ The allowed claim(s) is/are *1-5,7-25 and 27-46*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
       Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

1.   This is in response to the Applicant's amendments and arguments filed on 05/05/2006 in

which claims 1-5, 7-21, 23-25, 27-41 and 43-46 have been amended, and claims 6 and 26 have

been canceled. Claims 1-5, 7-25 and 27-46 are currently pending.

Allowable Subject Matter

2.   After a further search and thorough examination of the present application and in view of

the application's argument and amendments, claims 1-5, 7-25 and 27-46 are found to be in

condition of allowance.

The following is an examiner's statement of reasons for allowance:

        Regarding claim 1, the prior art record does not disclose nor fairly suggest in a

communications network, a communication unit to transmit and receive information within said

network comprising: at least one transmitter to transmit outgoing information to at least one

other communication unit within said network; at least one receiver to receive incoming

information from at least one other communication unit within said network; and a processor to

control said transmission and reception of said outgoing and incoming information, wherein said

processor includes: a reservation module to reserve at least one communication link within said

network for communicating with at least one other communication unit and to dynamically select

a frame architecture from among a plurality of frame architectures employed by said

communication unit based on the mode of to said communications and utilization of a

retransmission scheme over said reserved communication link, wherein said plurality of frame

architectures support full duplex and simplex modes of communications and retransmission of

information; wherein said *selected frame architectures includes a plurality of time slots serving*

as said communication link; and said plurality of time slots includes for a simplex mode at least one time slot associated with a transmission path, for a duplex mode at least one additional time slot associated with a receiving path, for a retransmission mode at least one additional time slot to said simplex or duplex modes and associated with a retransmission of information, and at least one time slot associated with an acknowledgement.

Regarding claim 22, the prior art record does not disclose nor fairly suggest in communications network, a communication unit to transmit and receive information within said network comprising: at least one transmitter to transmit outgoing information to at least one other communication unit within said network; at least one receiver to receive incoming information from at least one other communication unit within said network; and a processor to control said transmission and reception of said outgoing and incoming information, wherein a data channel facilitates reservation of a communication link and a voice channel facilitates transfer of voice information, and said processor includes: *a reservation module to reserve at least one communication link within said network for communication with at least one other communication unit and to dynamically select a frame architecture to facilitate said communications over said reserved communication links; a data allocation module to allocate data to said voice channel in response to utilization of said voice channel being below a first utilization threshold and utilization of said data channel being greater than a second utilization threshold; and a voice allocation module to allocate voice information to said data channel in response to utilization of said data channel being below said first utilization threshold and utilization of said voice channel being greater than said second utilization*

threshold; wherein said first utilization threshold indicates light utilization and said second utilization threshold indicates heavy utilization.

Regarding claim 23, the prior art record does not disclose nor fairly suggest in a communications network, a communication unit to transmit and receive information within said network comprising: a reservation module to reserve at least one communication link within said network for communicating with at least one other communication unit and to dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information; wherein said *selected frame architectures includes a plurality of time slots serving as said communication link; and said plurality of time slots includes for a simplex mode at least one time slot associated with a transmission path, for a duplex mode at least one additional time slot associated with a receiving path, for a retransmission mode at least one additional time slot to said simplex or duplex modes and associated with a retransmission of information, and at least one time slot associated with an acknowledgement.*

Regarding claim 42, the prior art record does not disclose nor fairly suggest in a communication unit of a network, wherein said unit includes a data channel to facilitate said reservation of a communication link and a voice channel to facilitate transfer of voice information, a method of transferring information with other communication units within said network comprising: *(a) reserving at least one communication link within said network for communications with at least one other communication unit and dynamically selecting a*

frame architecture to facilitate said communications over said re-served communication links wherein and step (a) further includes: (a. 1) allocating data to said voice channel in response to utilization of said voice channel being below a first utilization threshold and utilization of said data channel being greater than a second utilization threshold; and (a.2) allocating voice information to said data channel in response to utilization of said data channel being below said first utilization threshold and utilization of said voice channel being greater than said second utilization threshold; wherein said first utilization threshold indicates light utilization and said second utilization threshold indicates heavy utilization.

Regarding claim 43, the prior art record does not disclose nor fairly suggest a communications network comprising: a plurality of communication units for transferring information there between, wherein at least one communication link within said network is reserved by a communication unit for communicating with at least one other communication unit and said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information; wherein said *selected frame architectures includes a plurality of time slots serving as said communication link; and said plurality of time slots includes for a simplex mode at least one time slot associated with a transmission path, for a duplex mode at least one additional time slot associated with a receiving path, for a retransmission mode at least one additional time slot to said simplex or duplex modes and*

associated with a retransmission of information, and at least one time slot associated with an

acknowledgement

Regarding claim 45, the prior art record does not disclose nor fairly suggest in a communications network, a method of transferring information between communication units within said network comprising: (a) reserving at least one communication link within said network for communications between at least two communication units, wherein said communicating units dynamically select a frame architecture from among a plurality of frame architectures employed by said communication unit based on the mode of to said communications and utilization of a retransmission scheme over said reserved communication link, wherein said plurality of frame architectures support full duplex and simplex modes of communications and retransmission of information; wherein said *selected frame architectures includes a plurality of time slots serving as said communication link; and said plurality of time slots includes for a simplex mode at least one time slot associated with a transmission path, for a duplex mode at least one additional time slot associated with a receiving path, for a retransmission mode at least one additional time slot to said simplex or duplex modes and associated with a retransmission of information, and at least one time slot associated with an acknowledgement.*

3.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.   Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong
AU: 2617
Date: 05-22-2006

ELISEO RAMOS-FELICIANO
PRIMARY EXAMINER